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Hospital Ship *Public Health Operations*

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Unclassified

Mission

Unclassified

- Win the trust and confidence of the international community
- Build goodwill through delivery of Health Services
- Lesson Learned: Success of Tsunami relief operations built extensive international goodwill

Navy Surgeon General Vision

- Navy Medicine must:
  - Be responsive and agile
  - Have specially-trained experts capable of executing a wide variety of activities critical to operational success

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Deployed Public Health Mission Requirements

- **Principles of Public Health Efforts**

  - Medically valid and of benefit to the host nation
  - Mutual Navy, Non-governmental Organization (NGO) and host nation involvement
  - Creation of partnerships
  - Designed to augment or improve host nation public health capabilities and outcomes

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Pre-Assist Visit Planning Deployed Public Health Team

- **Pre-deployment Planning and Coordination (Concept of Operations [CONOPS] Development)**
  - Obtain up-to-date information about host nation
    - Medical threats - endemic diseases, environmental hazards
    - Protect team members
  - Identify host nation needs
    - Advance party meeting to coordinate services with host nation wishes
    - Align skills and equipment to match planned services
  - Logistics coordination – obtain equipment and supplies to meet planned services
  - Establish Subject Matter Expert "reach-back": WHO, CDC, AFMIC, Host Nation Ministries of Health, NEHC, Navy Environmental Preventive Medicine Units, etc.

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Key to Success
Public Health Assistance

- Advance planning (must include Public Health Expert)
  - Coordinate public health activities ashore
  - Establishing relationships with local Ministries of Health, community leaders and NGOs
  - Matching team capabilities and time constraints with local needs
- Prepare:
  - Media: Base public health practice training and talks on local needs and ensure acceptablility (cultural sensitivity)
  - Personnel training: Community Health Nurses, Allied health Specialists, Preventive Medicine Technicians presentations
  - Logistics: Have the necessary supplies needed for each site
  - Report templates: Summary of team services for local healthcare institutions and providers

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Key Functions Deployed Public Health Team

- Coordinate supervise humanitarian assistance sites for administering immunizations
- Assist with local public health control programs:
  - Design of community based public health programs
  - Prevention and treatment of disease
  - Quarantine and isolation procedures
  - Water and sanitation
  - Hazardous materials

Navy Public Health Team

- **Forward Deployed Preventive Medicine Unit (FDPMU)__**
  - Mission - Provide specialized preventive medicine support to forward deployed U.S. Forces
  - 13 member team with 5 functional detection/analysis components:
    - Preventive medicine
    - Disease Vector Control
    - Microbiology
    - Chemical (hazmat, toxicology)
    - Radiation
  - ✓ Can be quickly mobilized to provide "real-time" forward lab analytical capability and full spectrum preventive medicine support services
  - ✓ Modular, scalable and adaptable
  - ✓ Capability spans a full range of operations; combat, humanitarian assistance, disaster relief
  - May be employed as part of a forward deployed "afloat platform"

Hospital Ship Public Health Team Composition

- **Public Health Team (minimum assets required)**
  - 1 Preventive Medicine Officer
  - 1 Microbiologist (plus 1 Advanced Lab tech.)
  - 1 Industrial Hygiene Officer
  - 1 Environmental Health Officer (plus 1 senior and 2-3 experienced Preventive Medicine Technicians)
  - 1 Entomologist
  - 1 Veterinarian / 1 Veterinary Technician (augmented from US Army)
  - 1 Interpreter versed in the language and customs of the local population (community health experience highly desired)

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Public Health Team Capabilities

- **Microbiology & Advance Lab Support**
  - Disease diagnostic equipment (basic microscopy and RT/PCR)
  - Analysis / testing can be done ashore or aboard ship (ship basing preferable as controlled environment less prone to contamination of sample being tested)
  - Assist in conducting serologic surveys for tropical diseases
  - Training:
    - Basic and intermediate micro technique for lab techs serving in community clinics and hospitals
    - Microbiology for medical students, residents and physicians; for example, RT/PCR technology, diagnostics for malaria, dengue, filariasis, and other diseases
  - Conduct host nation lab quality reviews as requested

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Public Health Team Capabilities

- **Industrial Hygiene**
  - Qualitative and quantitative hazard analysis for air, liquid, and solids (pre-planning key as ample reagent supplies required)
  - IH surveys for industrial site hazard analysis (hazardous waste disposal sites, ventilation systems, exhaust hoods, bio-safety cabinets, incinerators)
  - Conduct field training with host nationals when performing IH surveys and sample analysis
  - Provide written reports on all analysis undertaken with appropriate recommendations of corrective action for host nation public health officials

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Public Health Team Capabilities

- **Environmental Health**
  - Perform Environmental Site Assessments (identify potential disease risks, environmental threats)
  - Conduct site surveys of existing public utilities (water distribution systems, sewage treatment systems, liquid/solid waste management practices)
  - Training on hand washing, personal hygiene, food safety and water testing to reduce potential for disease transmission
  - Assist the Entomologist with disease vector surveillance and control operations
  - Investigate any suspected disease outbreaks or unusual trends

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Public Health Team Capabilities

- **Entomology**
  - Perform vector surveillance operations (vector collection, identification, counts with special attention to disease vectors unique to the region)
  - Conduct vector control operations (Spraying, larvicide application) to reduce vector borne disease transmission
  - Review vector control programs, particularly for malaria and dengue, and offer appropriate recommendations
  - Training:
    - Field training for local Ministry of Health malaria control technicians
    - Basic vector ecology lectures for medical students, residents and community workers

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Public Health Team Capabilities

- **Veterinary Medicine**
  - Perform limited animal vaccination support (for example, rabies, new castle disease, etc.)
  - Recommend animal control measures (management of stray dogs, cats, etc.)
  - Training:
    - Provide training and education on animal and live stock care, including disease prevention strategies and countermeasures
    - Conduct training in conjunction with local Ministry of Agriculture, for example surgical techniques and procedures
    - Conduct food safety seminars for veterinary technicians involved with food product safety and storage inspections
  - Limited animal treatment and surgery capability

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Recent History: Navy FDPMU Missions

- **Detainee Operations (Guantanamo Bay)** - 4 teams from Jan 02 - May 04
- **OIF I** - 3 teams from Feb - Jun 03’ (Support to NAVCENT and MARCENT)
- **OIF II** - 4 teams from Jan-Nov 04’ (Support to CJTF-7 / MNC-I, I MEF)
- **Hurricane Ivan Disaster Relief** - Deployed team in Sept 04 (Support to NAVSTA Pensacola)
- **Haiti -** Deployed team from Mar-Jun 04’ (Support to JTF)
- **OIF 04-06** - 4 teams from Dec 04 - Jan 06’ (Support to MNF-I and CFLCC)
- **Tsunami Relief Effort** - Deployed 31 member task-organized Prev Med Team in Jan - May 05 (Support to CSF 536)
- **Hurricane Katrina Relief Effort** - Deployed 15 task-organized Prev Med Team in 2-27 Sept 05’ (Support to JTF New Orleans and Navy Shore / Afloat Commands within AOR)
- **Pakistan Earthquake Relief Effort** - Deployed task-organized Prev Med Team to Islamabad Pakistan 15 Oct - 20 Dec 05’ (Support to JTF humanitarian support mission)

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Tsunami Relief: Mercy Team Impact

- Conducted site surveys of 28 IDP camps with approximately 18,000 residents
  - ✓ Performed vector control operations in all camps
  - ✓ Coordinated with IGOs and NGOs for essential services for camps
    - UNICEF for the delivery of bed nets
    - OXFAM for the delivery of water bladders
    - IOM for the delivery of food, water and shelter

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Tsunami Relief: Mercy Team Impact

- Conducted sophisticated water testing on IDP drinking and bathing water and reported results to the Provincial Department of Public Works
- Consulted with IOM on a temporary housing project for 11,000 families preserving the involvement of key donor (2.5 Million Euro)
- Provided training to large vector control NGO (MENTOR-Initiative)
- Analyzed the three major sources of drinking water for the Banda Aceh vicinity
- Advised UNICEF and WHO on disease surveillance techniques

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Questions ?

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